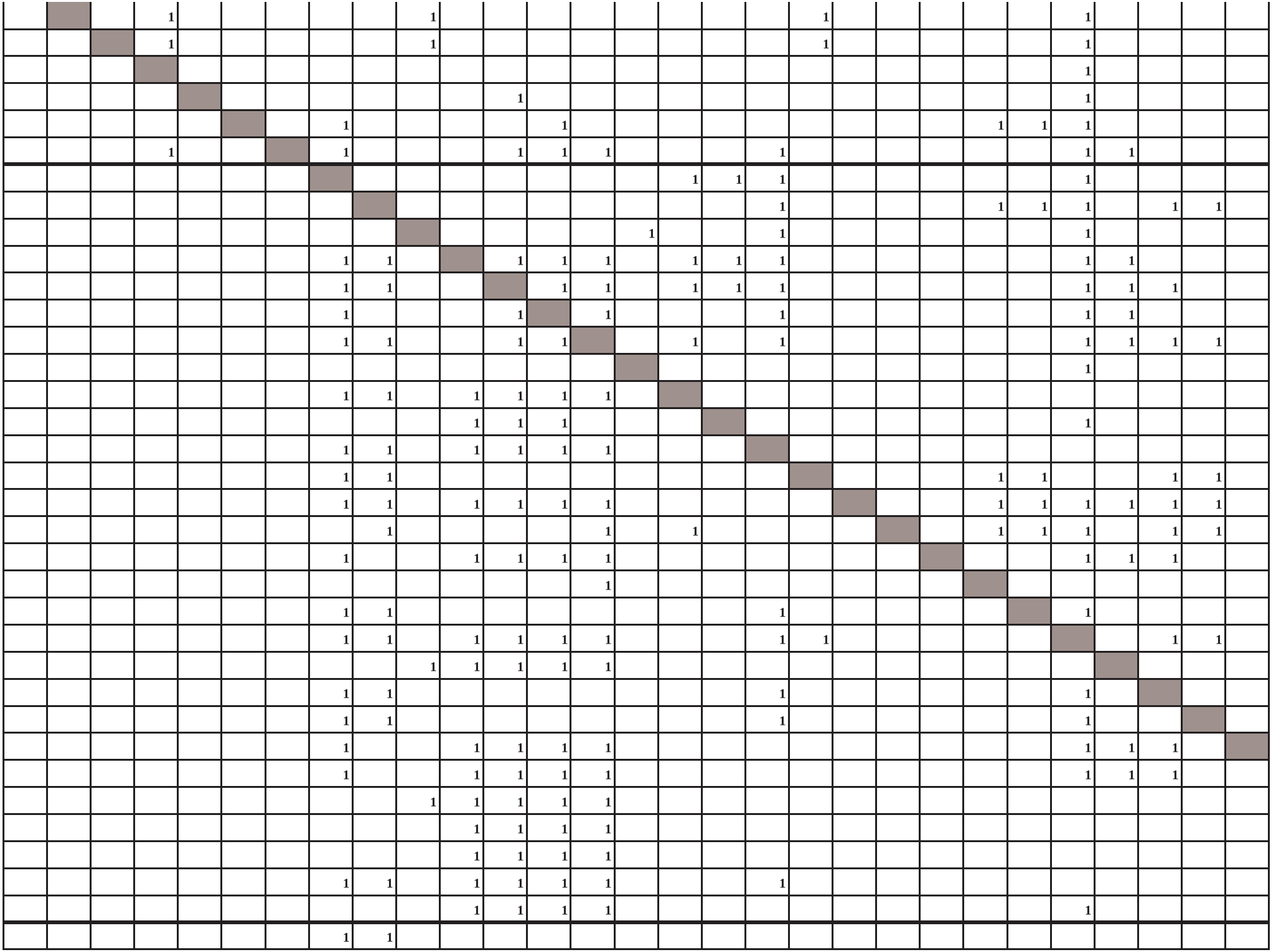
Appendix C

	Drivers / Receivers	Accuracy of information from displays other than the SVS	Altitude of the aircraft (too low/high?)	Amount of information available from displays other than SVS	Amount of noise in the cockpit	ATC workload	Ceiling visibility at destination airport	Degree of redundant coding of SVS data	Degree of time pressure	Difficulty of approach	Difficulty of landing	Difficulty of terrain environment at destination airport	Functioning/malfunctioning of displays other than the SVS	Glare on displays other than the SVS
Environment	Accuracy of information from displays other than the SVS		1						1	1	1			
	Altitude of the aircraft (too low/high?)					1				1	1			
	Amount of information available from displays other than SVS									1	1			
	Amount of noise in cockpit													
	ATC workload													
	Ceiling visibility at destination airport		1			1				1	1			
	Degree of redundant coding of SVS data													
	Degree of time pressure					1				1	1			
	Difficulty of approach					1					1			
	Difficulty of landing					1								
	Difficulty of terrain environment at destination airport		1							1	1			
	Functioning/malfunctioning of displays other than the SVS		1			1				1	1			
	Glare on displays other than the SVS									1	1			
	Lighting conditions in the cockpit													1

	Physical state of the aircraft		1			1				1	1			
	Physical state of the engines		1			1				1	1			
	Speed of aircraft (too low/high?)					1				1	1			
	Traffic situation at destination airport					1				1	1			
	Usability/intuitiveness of displays other than the SVS									1	1			
	Weather conditions at destination airport		1			1				1	1			
Pilot	Accuracy of pilots mental model of the environment									1	1			
	Accuracy of pilots mental model of the SVS									1	1			
	Amount of collaboration with crew members									1	1			
	Amount of display cross-checking									1	1			
	Amount of time spent looking out-the-window									1	1			
	Amount of time spent reading instruments other than the SVS									1	1			
	Amount of time spent viewing the SVS display									1	1			
	Amount of trust in crew members									1	1			
	Amount of trust in SVS													
	Amount of trust in systems other than the SVS													
	Current level of SA									1	1			
	Degree of pilot fatigue									1	1			
	Experience and ability of the pilot					1				1	1			
	Experience using the SVS									1	1			
	Experience with terrain surrounding destination airport									1	1			
	Inference delay													
	Inference error									1	1			
	Level of mental workload									1	1			
	Level of self confidence													
	Number of errors in perceiving SVS data									1	1			
	Pilot error when using the SVS									1	1			
	Pilot experience with this specific approach									1	1			
	Pilot experience with this specific landing									1	1			
	Pilot preference													
	Pilots level of confidence in his/her perception of the SVS													
	Pilots level of confidence in his/her perception of the world													
	Pilots level of confidence in the accuracy of the SVS													
	Proximity to the destination airport													
Machine	Ability to declutter SVS display									1	1			

Accuracy of GPS		1			1				1	1				
Accuracy of terrain database		1			1				1	1				
Auditory vs. visual warning									1	1				
Color of symbols/text									1	1				
Color of terrain									1	1				
Degree of display clutter									1	1				
Degree of overlay with PFD data									1	1				
Display size									1	1				
Feedback delay									1	1				
FOV currently depicted on the SVS display									1	1				
Functioning/malfunctioning of hardware/software									1	1				
Glare on SVS									1	1				
Intuitiveness/usability of the SVS									1	1				
Layout of controls									1	1				
Limitations of the machines processor									1	1				
Location of the SVS display in the cockpit									1	1				
Number of highlighted features currently in view									1	1				
Number of key presses required to access desired information									1	1				
Number of layers in menu structure									1	1				
Number of obstacles currently in view									1	1				
Physical condition of display surfaces									1	1				
Pictorial scene information density									1	1				
Placement of controls									1	1				
Processing time (to display data from terrain database)									1	1				
Size of symbols/text									1	1				
Tactile feedback from controls														
Update rate of GPS									1	1				
Update rate of terrain database									1	1				
SENSITIVITY TOTAL	0	9	0	0	14	0	0	1	61	62	0	0	1	
SENSITIVITY RANK (2)	63	23.5	63	63	17.5	63	63	45	3	2	63	63	45	

			Environment																					Pilot				
			1				1			1	1	1				1	1							1	1			
																								1				
							1				1	1	1				1							1	1			
																								1		1	1	
			1				1				1	1	1				1							1	1			
							1	1		1		1	1		1		1							1	1	1	1	
										1	1	1	1				1							1		1	1	
										1	1	1	1				1	1						1	1	1	1	
										1	1	1	1				1	1						1	1	1	1	
			1				1			1	1	1	1				1	1						1	1	1	1	
			1				1			1	1	1	1			1	1							1	1			
							1					1												1	1			



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							1				1	1	1				1							1		1	1	
							1	1			1	1	1				1							1		1	1	
							1				1	1	1				1							1		1	1	
							1	1			1	1	1				1							1		1		
							1	1			1	1	1				1							1		1	1	
																	1							1		1	1	
													1				1					1	1	1		1	1	
							1																	1				
							1	1		1	1	1	1				1							1		1	1	
							1	1		1	1	1	1				1					1	1	1		1	1	
							1	1		1	1	1	1		1		1					1	1	1		1	1	
							1	1																1			1	
							1	1		1	1	1	1				1					1	1	1		1	1	
											1	1	1				1							1				
											1	1	1				1							1				
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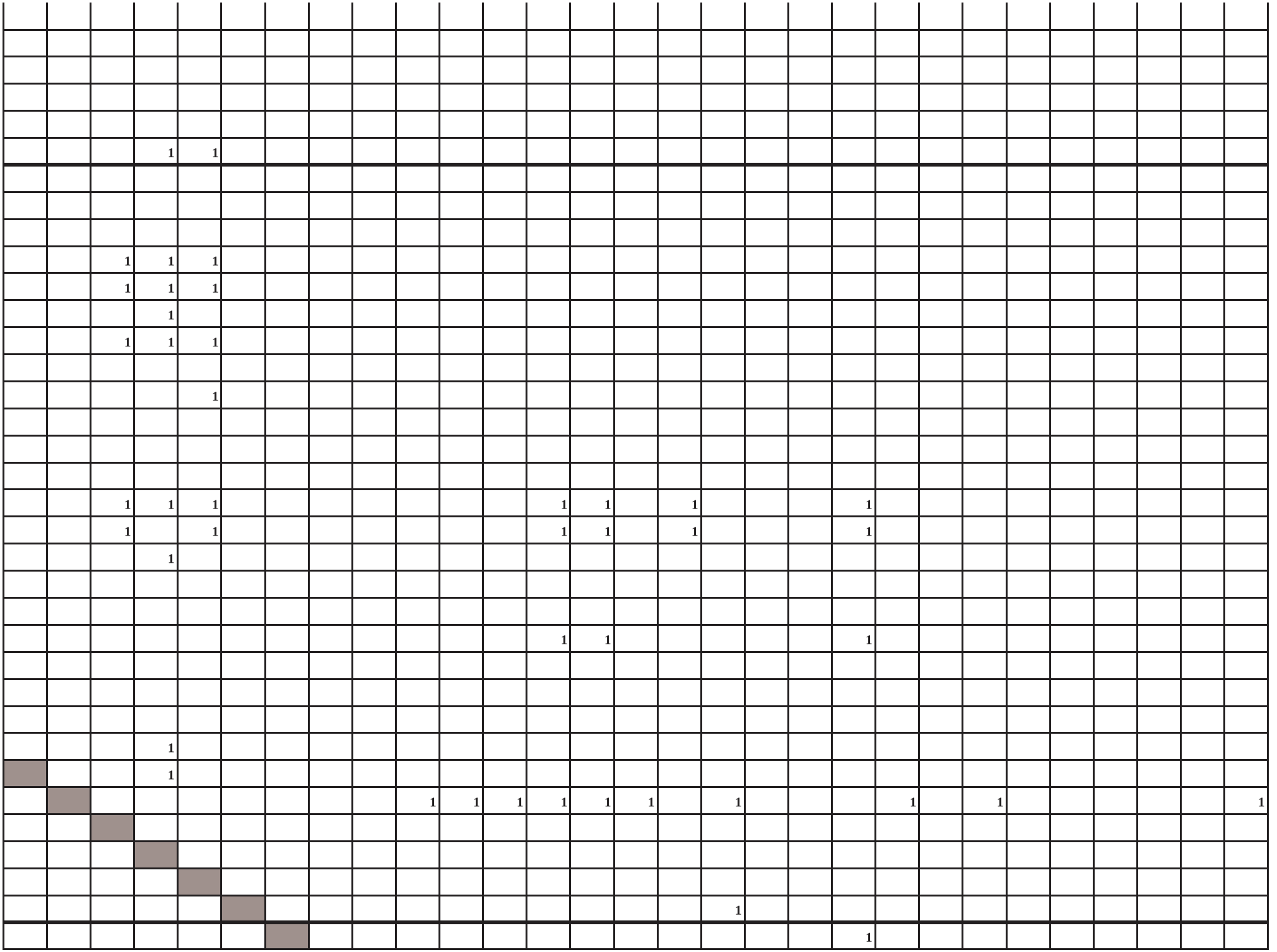
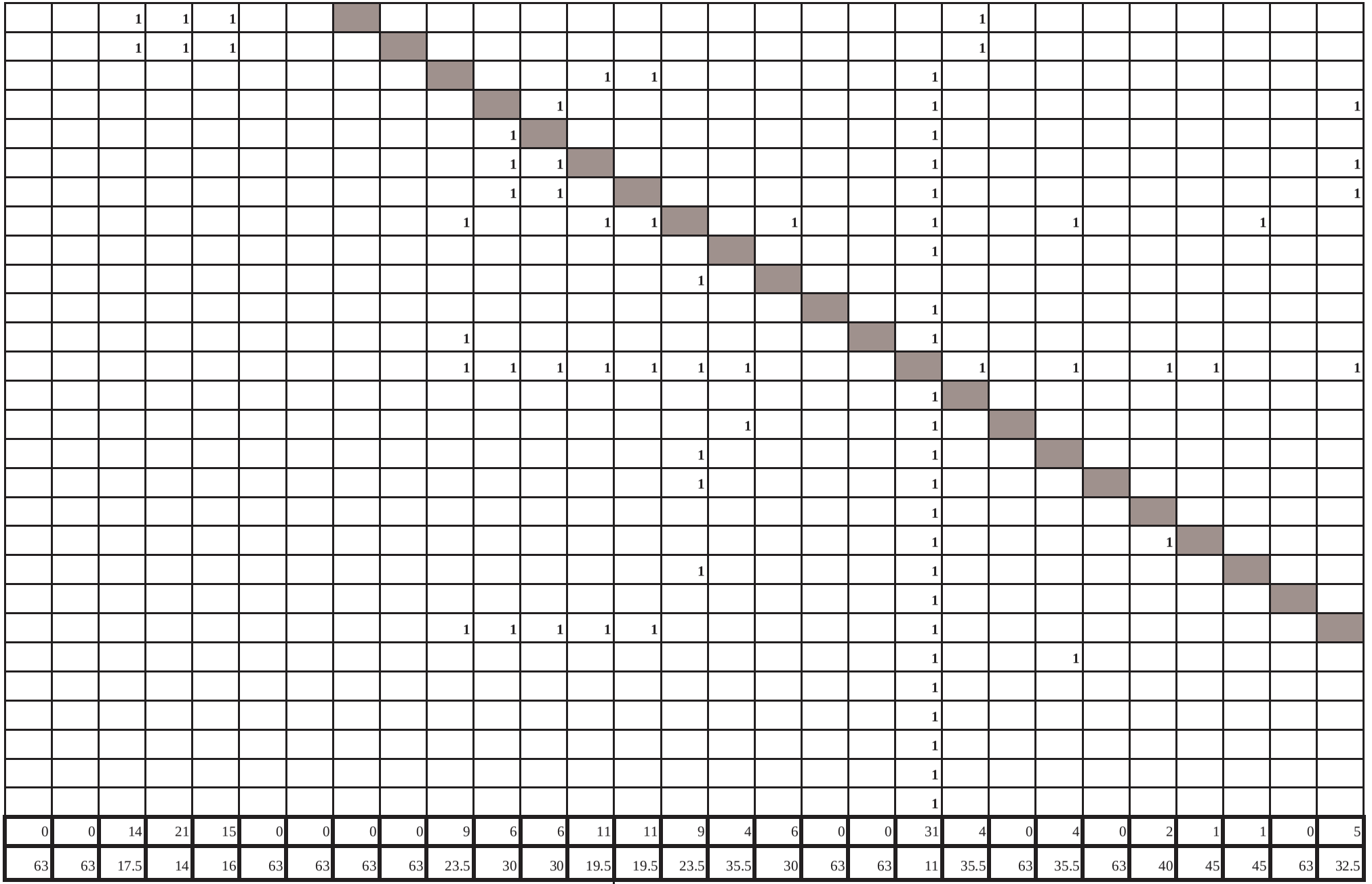
								1				1	1				1			1				1			1	
												1	1				1							1				
							1	1		1	1	1	1				1							1		1	1	
							1	1			1	1	1				1							1		1	1	
												1	1				1							1			1	
							1	1				1	1		1		1							1				
												1	1				1							1		1	1	
																								1			1	
							1	1				1	1				1							1				
							1	1				1	1				1							1				
0	0	0	9	0	0	0	44	31	4	28	43	52	51	1	8	5	46	8	0	2	0	9	9	63	18	32	31	0
63	63	63	23.5	63	63	63	7	11	35.5	13	8	4	5	45	27.5	32.5	6	27.5	63	40	63	23.5	23.5	1	15	9	11	63

Machine

...ving SVS data	...n using the SVS	...t experience with this specific approach	Pilot experience with this specific approach	Pilot preference	Pilots level of confidence in his/her perception of the SVS	Pilots level of confidence in his/her perception of the SVS	Pilots level of confidence in his/her perception of the SVS	Proximity to destination airport	Ability to declutter SVS display	Accuracy of GPS	Accuracy of terrain database	Auditory vs. visual warning	Color of symbols/text	Color of terrain	Degree of display clutter	Degree of overlay with PFD data	Display size	Feedback delay	FOV currently depicted on the SVS display	Functioning/malfunctioning of hardware/software	Glare on SVS	Intuitiveness/usability of the SVS	Layout of controls	Limiations of the machines processor	Location of the SVS display	Number of highlighted features currently in view	Number of key presses required to access desired	Number of layers in menu structure	Physical conditi...	Pictor...
			1	1																										
		1	1	1																										
									1																					
			1	1																										
		1	1	1																										
		1	1																											
		1	1						1			1	1	1		1			1											
		1	1						1			1	1	1		1			1											
		1	1	1					1			1	1	1		1			1											
		1	1	1																										
			1																											





0	0	14	21	15	0	0	0	0	9	6	6	11	11	9	4	6	0	0	31	4	0	4	0	2	1	1	0	5
63	63	17.5	14	16	63	63	63	63	23.5	30	30	19.5	19.5	23.5	35.5	30	63	63	11	35.5	63	35.5	63	40	45	45	63	32.5

…ed information															
…ently in view															
…tion of display surfaces															
…torial scene information density															
Placement of controls															
Processing time (to display data from terrain database)															
Size of symbols/text															
Tactile feedback from controls															
Update rate of GPS															
Update rate of terrain database															
INFLUENCE TOTAL		15	4	12	4	0	14	14	13	20	19	24	17	7	1
INFLUENCE (2)		16.5	69.5	30.5	69.5	77	22.5	22.5	27.5	5	7	2	9.5	53	75.5

						8	48
						8	48
						4	69.5
						5	64
						7	53
						14	22.5
						6	58.5
						8	48
						5	64
						15	16.5
						15	16.5
						9	41.5
						15	16.5
						3	73.5
						7	53
						4	69.5
						8	48
						8	48
						22	3
						16	12.5
						11	33.5
						1	75.5
						6	58.5
						15	16.5
						5	64
						6	58.5
						6	58.5
						11	33.5
						11	33.5
1		**1**				17	9.5
						4	69.5
						4	69.5
						7	53
						6	58.5
						5	64

						20	5
						20	5
						13	27.5
						14	22.5
						12	30.5
						14	22.5
						15	16.5
		1				14	22.5
						10	36.5
						5	64
						13	27.5
						16	12.5
1		1	1			30	1
						7	53
	1					17	9.5
						9	41.5
						9	41.5
						6	58.5
						11	33.5
						9	41.5
						13	27.5
						17	9.5
						9	41.5
						10	36.5
						9	41.5
						3	73.5
						9	41.5
						9	41.5
2	1	3	1	0	0		
40	45	38	45	63	63		

	INFLUENCE TOTALS	SCORE	RANK	RANK (2)
m	Intuitiveness/usability of the SVS	30	1	1
w	Difficulty of terrain environment at destination airport	24	2	2
p	Experience and ability of the pilot	22	3	3
w	Difficulty of approach	20	4	5
m	Accuracy of GPS	20	4	5
m	Accuracy of terrain database	20	4	5
w	Difficulty of landing	19	7	7
w	Functioning/malfunctioning of displays other than the SVS	17	8	9.5
p	Pilot preference	17	8	9.5
m	Limitations of the machines processor	17	8	9.5
m	Pictorial scene information density	17	8	9.5
p	Experience using the SVS	16	12	12.5
m	Glare on SVS	16	12	12.5
w	Accuracy of information from displays other than the SVS	15	14	16.5
p	Amount of display cross-checking	15	14	16.5
p	Amount of time spent looking out-the-window	15	14	16.5
p	Amount of time spent viewing the SVS display	15	14	16.5
p	Level of mental workload	15	14	16.5
m	Degree of overlay with PFD data	15	14	16.5
w	Ceiling visibility at destination airport	14	20	22.5
w	Degree of redundant coding of SVS data	14	20	22.5
w	Weather conditions at destination airport	14	20	22.5
m	Color of symbols/text	14	20	22.5
m	Degree of display clutter	14	20	22.5
m	Display size	14	20	22.5
w	Degree of time pressure (is aircraft arriving on time, early)	13	26	27.5
m	Auditory vs. visual warning	13	26	27.5
m	Functioning/malfunctioning of hardware/software	13	26	27.5
m	Physical condition of display surfaces	13	26	27.5
w	Amount of information available from displays other SVS	12	30	30.5
m	Color of terrain	12	30	30.5
p	Experience with terrain surrounding destination airport	11	32	33.5
p	Pilot experience with this specific approach	11	32	33.5
p	Pilot experience with this specific landing	11	32	33.5
m	Number of layers in menu structure	11	32	33.5
m	Feedback delay	10	36	36.5
m	Processing time (to display data from terrain database)	10	36	36.5
p	Amount of time spent reading instruments other than the SVS	9	38	41.5
m	Location of the SVS display in the cockpit	9	38	41.5
m	Number of highlighted features currently in view	9	38	41.5

m	Number of obstacles currently in view	9	38	41.5
m	Placement of controls	9	38	41.5
m	Size of symbols/text	9	38	41.5
m	Update rate of GPS	9	38	41.5
m	Update rate of terrain database	9	38	41.5
w	Physical state of the aircraft	8	46	48
w	Physical state of the engines	8	46	48
p	Accuracy of pilots mental model of the SVS	8	46	48
p	Current level of SA	8	46	48
p	Degree of pilot fatigue	8	46	48
w	Glare on displays other than the SVS	7	51	53
w	Usability/intuitiveness of displays other than the SVS	7	51	53
p	Amount of trust in SVS	7	51	53
p	Pilots level of confidence in the accuracy of the SVS	7	51	53
m	Layout of controls	7	51	53
p	Accuracy of pilots mental model of the environment	6	56	58.5
p	Inference error	6	56	58.5
p	Number of errors in perceiving SVS data	6	56	58.5
p	Pilot error when using the SVS	6	56	58.5
p	Proximity to the destination airport	6	56	58.5
m	Number of key presses required to access desired information	6	56	58.5
w	Traffic situation at destination airport	5	62	64
p	Amount of collaboration with crew members	5	62	64
p	Level of self confidence	5	62	64
m	Ability to declutter SVS display	5	62	64
m	FOV currently depicted on the SVS display	5	62	64
w	Altitude of the aircraft (too low/high?)	4	67	69.5
w	Amount of noise in cockpit	4	67	69.5
w	Speed of aircraft (too low/high?)	4	67	69.5
p	Amount of trust in systems other than the SVS	4	67	69.5
p	Pilots level of confidence in his/her perception of the SVS	4	67	69.5
p	Pilots level of confidence in his/her perception of the world	4	67	69.5
p	Amount of trust in crew members	3	73	73.5
m	Tactile feedback from controls	3	73	73.5
w	Lighting conditions in the cockpit	1	75	75.5
p	Inference delay	1	75	75.5
w	ATC workload	0	77	77

	SENSITIVITY TOTALS	SCORE	RANK	RANK (2)
m	Level of mental workload	63	1	1
m	Difficulty of landing	62	2	2
m	Difficulty of approach	61	3	3
m	Amount of time spent reading instruments other than the SVS	52	4	4
m	Amount of time spent viewing the SVS display	51	5	5
m	Current level of SA	46	6	6
m	Accuracy of pilots mental model of the environment	44	7	7
m	Amount of time spent looking out-the-window	43	8	8
m	Number of errors in perceiving SVS data	32	9	9
m	Intuitiveness/usability of the SVS	31	10	11
m	Accuracy of pilots mental model of the SVS	31	10	11
m	Pilot error when using the SVS	31	10	11
m	Amount of display cross-checking	28	13	13
m	Pilots level of confidence in his/her perception of the world	21	14	14
m	Level of self confidence	18	15	15
m	Pilots level of confidence in the accuracy of the SVS	15	16	16
m	Pilots level of confidence in his/her perception of the SVS	14	17	17.5
m	ATC workload	14	17	17.5
m	Degree of display clutter	11	19	19.5
m	Degree of overlay with PFD data	11	19	19.5
m	Auditory vs. visual warning	9	21	23.5
m	Display size	9	21	23.5
m	Inference delay	9	21	23.5
m	Inference error	9	21	23.5
m	Altitude of the aircraft (too low/high?)	9	21	23.5
m	Speed of aircraft (too low/high?)	9	21	23.5
m	Amount of trust in SVS	8	27	27.5
m	Degree of pilot fatigue	8	27	27.5
m	Color of symbols/text	6	29	30
p	Color of terrain	6	29	30
p	FOV currently depicted on the SVS display	6	29	30
p	Pictorial scene information density	5	32	32.5
p	Amount of trust in systems other than the SVS	5	32	32.5
p	Feedback delay	4	34	35.5
p	Layout of controls	4	34	35.5
p	Location of the SVS display in the cockpit	4	34	35.5
p	Amount of collaboration with crew members	4	34	35.5
p	Size of symbols/text	3	38	38
p	Number of key presses required to access desired information	2	39	40
p	Placement of controls	2	39	40

p	Experience using the SVS	2	39	40
p	Number of layers in menu structure	1	42	45
p	Number of obstacles currently in view	1	42	45
p	Processing time (to display data from terrain database)	1	42	45
p	Tactile feedback from controls	1	42	45
p	Amount of trust in crew members	1	42	45
p	Degree of time pressure (is aircraft arriving on time, early)	1	42	45
p	Glare on displays other than the SVS	1	42	45
p	Ability to declutter SVS display	0	49	63
p	Accuracy of GPS	0	49	63
p	Accuracy of terrain database	0	49	63
p	Functioning/malfunctioning of hardware/software	0	49	63
p	Glare on SVS	0	49	63
p	Limitations of the machines processor	0	49	63
p	Number of highlighted features currently in view	0	49	63
p	Physical condition of display surfaces	0	49	63
p	Update rate of GPS	0	49	63
w	Update rate of terrain database	0	49	63
w	Experience and ability of the pilot	0	49	63
w	Experience with terrain surrounding destination airport	0	49	63
w	Pilot experience with this specific approach	0	49	63
w	Pilot experience with this specific landing	0	49	63
w	Pilot preference	0	49	63
w	Proximity to the destination airport	0	49	63
w	Accuracy of information from displays other than the SVS	0	49	63
w	Amount of information available from displays other SVS	0	49	63
w	Amount of noise in cockpit	0	49	63
w	Ceiling visibility at destination airport	0	49	63
w	Degree of redundant coding of SVS data	0	49	63
w	Difficulty of terrain environment at destination airport	0	49	63
w	Functioning/malfunctioning of displays other than the SVS	0	49	63
w	Lighting conditions in the cockpit	0	49	63
w	Physical state of the aircraft	0	49	63
w	Physical state of the engines	0	49	63
w	Traffic situation at destination airport	0	49	63
w	Usability/intuitiveness of displays other than the SVS	0	49	63
w	Weather conditions at destination airport	0	49	63

INFLUENCE TOTALS	SCORE	RANK	RANK (2)
Environment			
Difficulty of terrain environment at destination airport	24	2	2
Difficulty of approach	20	4	5
Difficulty of landing	19	7	7
Functioning/malfunctioning of displays other than the SVS	17	8	9.5
Accuracy of information from displays other than the SVS	15	14	16.5
Ceiling visibility at destination airport	14	20	22.5
Degree of redundant coding of SVS data	14	20	22.5
Weather conditions at destination airport	14	20	22.5
Degree of time pressure (is aircraft arriving on time, early)	13	26	27.5
Amount of information available from displays other SVS	12	30	30.5
Physical state of the aircraft	8	46	48
Physical state of the engines	8	46	48
Glare on displays other than the SVS	7	51	53
Usability/intuitiveness of displays other than the SVS	7	51	53
Traffic situation at destination airport	5	62	64
Altitude of the aircraft (too low/high?)	4	67	69.5
Amount of noise in cockpit	4	67	69.5
Speed of aircraft (too low/high?)	4	67	69.5
Lighting conditions in the cockpit	1	75	75.5
ATC workload	0	77	77
Pilot			
Experience and ability of the pilot	22	3	3
Pilot preference	17	8	9.5
Experience using the SVS	16	12	12.5
Amount of display cross-checking	15	14	16.5
Amount of time spent looking out-the-window	15	14	16.5
Amount of time spent viewing the SVS display	15	14	16.5
Level of mental workload	15	14	16.5
Experience with terrain surrounding destination airport	11	32	33.5
Pilot experience with this specific approach	11	32	33.5
Pilot experience with this specific landing	11	32	33.5
Amount of time spent reading instruments other than the S	9	38	41.5
Accuracy of pilots mental model of the SVS	8	46	48
Current level of SA	8	46	48
Degree of pilot fatigue	8	46	48
Amount of trust in SVS	7	51	53
Pilots level of confidence in the accuracy of the SVS	7	51	53
Accuracy of pilots mental model of the environment	6	56	58.5

Inference error	6	56	58.5
Number of errors in perceiving SVS data	6	56	58.5
Pilot error when using the SVS	6	56	58.5
Proximity to the destination airport	6	56	58.5
Amount of collaboration with crew members	5	62	64
Level of self confidence	5	62	64
Amount of trust in systems other than the SVS	4	67	69.5
Pilots level of confidence in his/her perception of the SVS	4	67	69.5
Pilots level of confidence in his/her perception of the world	4	67	69.5
Amount of trust in crew members	3	73	73.5
Inference delay	1	75	75.5
Machine			
Intuitiveness/usability of the SVS	30	1	1
Accuracy of GPS	20	4	5
Accuracy of terrain database	20	4	5
Limitations of the machines processor	17	8	9.5
Pictorial scene information density	17	8	9.5
Glare on SVS	16	12	12.5
Degree of overlay with PFD data	15	14	16.5
Color of symbols/text	14	20	22.5
Degree of display clutter	14	20	22.5
Display size	14	20	22.5
Auditory vs. visual warning	13	26	27.5
Functioning/malfunctioning of hardware/software	13	26	27.8
Physical condition of display surfaces	13	26	27.8
Color of terrain	12	30	30.5
Number of layers in menu structure	11	32	33.5
Feedback delay	10	36	36.5
Processing time (to display data from terrain database)	10	36	36.5
Location of the SVS display in the cockpit	9	38	41.5
Number of highlighted features currently in view	9	38	41.5
Number of obstacles currently in view	9	38	41.5
Placement of controls	9	38	41.5
Size of symbols/text	9	38	41.5
Update rate of GPS	9	38	41.5
Update rate of terrain database	9	38	41.5
Layout of controls	7	51	53
Number of key presses required to access desired informati	6	56	58.5
Ability to declutter SVS display	5	62	64
FOV currently depicted on the SVS display	5	62	64
Tactile feedback from controls	3	73	73.5

SENSITIVITY TOTALS	SCORE	RANK	RANK (2)
Environment			
Difficulty of approach	61	3	3
ATC workload	14	17	17.5
Altitude of the aircraft (too low/high?)	9	21	23.5
Speed of aircraft (too low/high?)	9	21	23.5
Degree of time pressure (is aircraft arriving on time, early)	1	42	45
Glare on displays other than the SVS	1	42	45
Accuracy of information from displays other than the SVS	0	49	63
Amount of information available from displays other SVS	0	49	63
Amount of noise in cockpit	0	49	63
Ceiling visibility at destination airport	0	49	63
Degree of redundant coding of SVS data	0	49	63
Difficulty of terrain environment at destination airport	0	49	63
Functioning/malfunctioning of displays other than the SVS	0	49	63
Lighting conditions in the cockpit	0	49	63
Physical state of the aircraft	0	49	63
Physical state of the engines	0	49	63
Traffic situation at destination airport	0	49	63
Usability/intuitiveness of displays other than the SVS	0	49	63
Weather conditions at destination airport	0	49	63
Pilot			
Level of mental workload	63	1	1
Amount of time spent reading instruments other than the S`	52	4	4
Amount of time spent viewing the SVS display	51	5	5
Current level of SA	46	6	6
Accuracy of pilots mental model of the environment	44	7	7
Amount of time spent looking out-the-window	43	8	8
Number of errors in perceiving SVS data	32	9	9
Accuracy of pilots mental model of the SVS	31	10	11
Pilot error when using the SVS	31	10	11
Amount of display cross-checking	28	13	13
Pilots level of confidence in his/her perception of the world	21	14	14
Level of self confidence	18	15	15
Pilots level of confidence in the accuracy of the SVS	15	16	16
Pilots level of confidence in his/her perception of the SVS	14	17	17.5
Inference delay	9	21	23.5
Inference error	9	21	23.5
Amount of trust in SVS	8	27	27.5

Degree of pilot fatigue	8	27	27.5
Amount of trust in systems other than the SVS	5	32	32.5
Amount of collaboration with crew members	4	34	35.5
Experience using the SVS	2	39	40
Amount of trust in crew members	1	42	45
Experience and ability of the pilot	0	49	63
Experience with terrain surrounding destination airport	0	49	63
Pilot experience with this specific approach	0	49	63
Pilot experience with this specific landing	0	49	63
Pilot preference	0	49	63
Proximity to the destination airport	0	49	63
Machine			
Intuitiveness/usability of the SVS	31	10	11
Degree of display clutter	11	19	19.5
Degree of overlay with PFD data	11	19	19.5
Auditory vs. visual warning	9	21	23.5
Display size	9	21	23.5
Color of symbols/text	6	29	30
Color of terrain	6	29	30
FOV currently depicted on the SVS display	6	29	30
Pictorial scene information density	5	32	32.5
Feedback delay	4	34	35.5
Layout of controls	4	34	35.5
Location of the SVS display in the cockpit	4	34	35.5
Size of symbols/text	3	38	38
Number of key presses required to access desired informati	2	39	40
Placement of controls	2	39	40
Number of layers in menu structure	1	42	45
Number of obstacles currently in view	1	42	45
Processing time (to display data from terrain database)	1	42	45
Tactile feedback from controls	1	42	45
Ability to declutter SVS display	0	49	63
Accuracy of GPS	0	49	63
Accuracy of terrain database	0	49	63
Functioning/malfunctioning of hardware/software	0	49	63
Glare on SVS	0	49	63
Limitations of the machines processor	0	49	63
Number of highlighted features currently in view	0	49	63
Physical condition of display surfaces	0	49	63
Update rate of GPS	0	49	63
Update rate of terrain database	0	49	63

INFLUENCE TOTALS	SCORE	RANK
Ability to declutter SVS display	5	62
Accuracy of GPS	20	4
Accuracy of information from displays other than the SVS	15	14
Accuracy of pilots mental model of the environment	6	56
Accuracy of pilots mental model of the SVS	8	46
Accuracy of terrain database	20	4
Altitude of the aircraft (too low/high?)	4	67
Amount of collaboration with crew members	5	62
Amount of display cross-checking	15	14
Amount of information available from displays other SVS	12	30
Amount of noise in cockpit	4	67
Amount of time spent looking out-the-window	15	14
Amount of time spent reading instruments other than the SVS	9	38
Amount of time spent viewing the SVS display	15	14
Amount of trust in crew members	3	73
Amount of trust in SVS	7	51
Amount of trust in systems other than the SVS	4	67
ATC workload	0	77
Auditory vs. visual warning	13	26
Ceiling visibility at destination airport	14	20
Color of symbols/text	14	20
Color of terrain	12	30
Current level of SA	8	46
Degree of display clutter	14	20
Degree of overlay with PFD data	15	14
Degree of pilot fatigue	8	46
Degree of redundant coding of SVS data	14	20
Degree of time pressure (is aircraft arriving on time, early)	13	26
Difficulty of approach	20	4
Difficulty of landing	19	7
Difficulty of terrain environment at destination airport	24	2
Display size	14	20
Experience and ability of the pilot	22	3
Experience using the SVS	16	12
Experience with terrain surrounding destination airport	11	32
Feedback delay	10	36
FOV currently depicted on the SVS display	5	62
Functioning/malfunctioning of displays other than the SVS	17	8
Functioning/malfunctioning of hardware/software	13	26
Glare on displays other than the SVS	7	51

Glare on SVS	16	12
Inference delay	1	75
Inference error	6	56
Intuitiveness/usability of the SVS	30	1
Layout of controls	7	51
Level of mental workload	15	14
Level of self confidence	5	62
Lighting conditions in the cockpit	1	75
Limitations of the machines processor	17	8
Location of the SVS display in the cockpit	9	38
Number of errors in perceiving SVS data	6	56
Number of highlighted features currently in view	9	38
Number of key presses required to access desired information	6	56
Number of layers in menu structure	11	32
Number of obstacles currently in view	9	38
Physical condition of display surfaces	13	26
Physical state of the aircraft	8	46
Physical state of the engines	8	46
Pictorial scene information density	17	8
Pilot error when using the SVS	6	56
Pilot experience with this specific approach	11	32
Pilot experience with this specific landing	11	32
Pilot preference	17	8
Pilots level of confidence in his/her perception of the SVS	4	67
Pilots level of confidence in his/her perception of the world	4	67
Pilots level of confidence in the accuracy of the SVS	7	51
Placement of controls	9	38
Processing time (to display data from terrain database)	10	36
Proximity to the destination airport	6	56
Size of symbols/text	9	38
Speed of aircraft (too low/high?)	4	67
Tactile feedback from controls	3	73
Traffic situation at destination airport	5	62
Update rate of GPS	9	38
Update rate of terrain database	9	38
Usability/intuitiveness of displays other than the SVS	7	51
Weather conditions at destination airport	14	20

SENSITIVITY TOTALS	SCORE	RANK
Ability to declutter SVS display	0	49
Accuracy of GPS	0	49

Accuracy of information from displays other than the SVS	0	49
Accuracy of pilots mental model of the environment	44	7
Accuracy of pilots mental model of the SVS	31	10
Accuracy of terrain database	0	49
Altitude of the aircraft (too low/high?)	9	21
Amount of collaboration with crew members	4	34
Amount of display cross-checking	28	13
Amount of information available from displays other SVS	0	49
Amount of noise in cockpit	0	49
Amount of time spent looking out-the-window	43	8
Amount of time spent reading instruments other than the SVS	52	4
Amount of time spent viewing the SVS display	51	5
Amount of trust in crew members	1	42
Amount of trust in SVS	8	27
Amount of trust in systems other than the SVS	5	32
ATC workload	14	17
Auditory vs. visual warning	9	21
Ceiling visibility at destination airport	0	49
Color of symbols/text	6	29
Color of terrain	6	29
Current level of SA	46	6
Degree of display clutter	11	19
Degree of overlay with PFD data	11	19
Degree of pilot fatigue	8	27
Degree of redundant coding of SVS data	0	49
Degree of time pressure (is aircraft arriving on time, early)	1	42
Difficulty of approach	61	3
Difficulty of landing	62	2
Difficulty of terrain environment at destination airport	0	49
Display size	9	21
Experience and ability of the pilot	0	49
Experience using the SVS	2	39
Experience with terrain surrounding destination airport	0	49
Feedback delay	4	34
FOV currently depicted on the SVS display	6	29
Functioning/malfunctioning of displays other than the SVS	0	49
Functioning/malfunctioning of hardware/software	0	49
Glare on displays other than the SVS	1	42
Glare on SVS	0	49
Inference delay	9	21
Inference error	9	21
Intuitiveness/usability of the SVS	31	10

Layout of controls	4	34
Level of mental workload	63	1
Level of self confidence	18	15
Lighting conditions in the cockpit	0	49
Limitations of the machines processor	0	49
Location of the SVS display in the cockpit	4	34
Number of errors in perceiving SVS data	32	9
Number of highlighted features currently in view	0	49
Number of key presses required to access desired information	2	39
Number of layers in menu structure	1	42
Number of obstacles currently in view	1	42
Physical condition of display surfaces	0	49
Physical state of the aircraft	0	49
Physical state of the engines	0	49
Pictorial scene information density	5	32
Pilot error when using the SVS	31	10
Pilot experience with this specific approach	0	49
Pilot experience with this specific landing	0	49
Pilot preference	0	49
Pilots level of confidence in his/her perception of the SVS	14	17
Pilots level of confidence in his/her perception of the world	21	14
Pilots level of confidence in the accuracy of the SVS	15	16
Placement of controls	2	39
Processing time (to display data from terrain database)	1	42
Proximity to the destination airport	0	49
Size of symbols/text	3	38
Speed of aircraft (too low/high?)	9	21
Tactile feedback from controls	1	42
Traffic situation at destination airport	0	49
Update rate of GPS	0	49
Update rate of terrain database	0	49
Usability/intuitiveness of displays other than the SVS	0	49
Weather conditions at destination airport	0	49

TOP FIFTEEN CHARACTERISTICS (INFLUENCE)	SCORE	RANK
Intuitiveness/usability of the SVS	30	1
Difficulty of terrain environment at destination airport	24	2
Experience and ability of the pilot	22	3
Difficulty of approach	20	4
Accuracy of GPS	20	4

Accuracy of terrain database	20	4
Difficulty of landing	19	7
Functioning/malfunctioning of displays other than the SVS	17	8
Pilot preference	17	8
Limitations of the machines processor	17	8
Pictorial scene information density	17	8
Experience using the SVS	16	12
Glare on SVS	16	12
Accuracy of information from displays other than the SVS	15	14
Amount of display cross-checking	15	14

TOP FIFTEEN CHARACTERISTICS (SENSITIVITY)	SCORE	RANK
Level of mental workload	63	1
Difficulty of landing	62	2
Difficulty of approach	61	3
Amount of time spent reading instruments other than the SVS	52	4
Amount of time spent viewing the SVS display	51	5
Current level of SA	46	6
Accuracy of pilots mental model of the environment	44	7
Amount of time spent looking out-the-window	43	8
Number of errors in perceiving SVS data	32	9
Accuracy of pilots mental model of the SVS	31	10
Pilot error when using the SVS	31	10
Intuitiveness/usability of the SVS	31	10
Amount of display cross-checking	28	13
Pilots level of confidence in his/her perception of the world	21	14
Level of self confidence	18	15

RANK (2)
65
5
15.8
59.5
49
5
70.5
65
15.8
31.5
70.5
15.8
42.5
15.8
74.5
54
70.5
77
28.5
23.5
23.5
31.5
49
23.5
15.8
49
23.5
28.5
5
8
2
23.5
3
13.5
34.5
37.5
65
10.5
28.5
54

13.5
76.5
59.5
1
54
15.8
65
76.5
10.5
42.5
59.5
42.5
59.5
34.5
42.5
28.5
49
49
10.5
59.5
34.5
34.5
10.5
70.5
70.5
54
42.5
37.5
59.5
42.5
70.5
74.5
65
42.5
42.5
54
23.5

RANK (2)

64
64

64
7
11
64
24.5
36.5
14
64
64
8
4
5
46
28.5
33.5
18.5
24.5
64
31
31
6
20.5
20.5
28.5
64
46
3
2
64
24.5
64
41
64
36.5
31
64
64
46
64
24.5
24.5
11

36.5
1
16
64
64
36.5
9
64
41
46
46
64
64
64
33.5
11
64
64
64
18.5
15
17
41
46
64
39
24.5
46
64
64
64
64
64

RANK (2)

1
2
3
5
5

5
8
10.5
10.5
10.5
10.5
13.5
13.5
15.8
15.8

RANK (2)
1
2
3
4
5
6
7
8
9
11
11
11
14
15
16